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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* LAWRENCE WILCOCK and  
ALISTAIR NEIL COLES

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Appeal 2009-004677  
Application 10/059,096  
Technology Center 2600

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Before THOMAS S. HAHN, CARL W. WHITEHEAD, JR., and  
BRADLEY W. BAUMEISTER, *Administrative Patent Judges*.

BAUMEISTER, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

## STATEMENT OF THE CASE

### *Summary*

Claims 1-68 stand rejected under 35 U.S.C. § 103(a) as obvious over Massie (US 5,943,427; issued Aug. 24, 1999) in view of Arnold (US 6,154,549, issued Nov. 28, 2000). Appellants appeal under 35 U.S.C. § 134(a) from this rejection.

We reverse.

### *Background*

[Appellants' invention relates to] an audio user interface . . . in which items are represented in an audio field by corresponding synthesized sound sources from where sounds related to the items appear to emanate. The sound sources are arranged in a cylindrical organisation in the audio field[,] and the field is preferably both displaceable along, and rotatable about, the axis of this organisation.

(Abstract).

## ANALYSIS

Claims 1-14, 28-36, 46-54, 64, and 65 are addressed in the first section of the analysis. Claims 15-27, 37-45, 55-63, and 66-68 are addressed in the second section.

### *I.*

Independent claim 1 is illustrative of independent claims 1, 28, and 46, and it reads as follows:

1. An audio user-interfacing method in which each of a plurality of items is represented in an audio field by plural synthesized sound sources from where sounds related to the item appear to emanate, the method comprising the steps of:

- (a) determining, for each said sound source, an associated rendering position at which the sound source is to be synthesized to emit sounds in the audio field, the rendering positions associated with the sound sources being on at least a portion of cylindrical locus of points; and
- (b) generating, using plural audio output devices, an audio field in which said sound sources are synthesized at their associated rendering positions to provide sounds related to the items concerned, the audio output devices being actually or notionally located inside the cylindrical locus of points.

With respect to independent claims 1, 28, and 46, Appellants argue the following:

[I]n order to meet the requirement for synthesized sound sources to be on a cylindrical locus of points or a portion of a cylindrical locus of points, it is necessary for at least two sound sources to be at the same radial distance from the axis of the cylindrical locus of points. However, Arnold has no disclosure of at least two synthesized sound sources being at the same radial position [sic: distance] from an axis of a cylindrical locus of points.

(App. Br. 15).

The Examiner finds that Massie discloses an audio-interfacing method generally, but “does not disclose the rendering positions associated with the sound sources is [sic: are] on at least a portion of cylindrical locus points” (Ans. 3). The Examiner further finds that “Arnold discloses an audio user-interfacing system/method, including a three-dimensional audio space/environment [that] . . . can also be defined in cylindrical coordinates” (Ans. 4). The Examiner then concludes that “[w]hen the teachings of Massie and Arnold are combined, it would have been obvious that the

rendering positions associated with the sound sources is [sic: are] on at least a portion of cylindrical locus points” (*id.*). That is, the Examiner does not allege that the combined prior art discloses rendering positions associated with sound sources that are on a locus of points that form at least a portion of a cylinder or any other geometric shape. The Examiner merely concludes that notwithstanding any such teaching or suggestion, positioning the rendering positions so as to be on a cylindrical locus “would have been obvious.”

Because the Examiner has neither (1) alleged that the combined prior art of record teaches or suggests the noted claim language of independent claims 1, 28, and 46; nor (2) provided any fact-based reasoning to support the conclusion that such a modification would have been obvious, we find that the Examiner has not established a *prima facie* case of obviousness. Accordingly, we do not sustain the Examiner’s rejection of those claims or dependent claims 2-14, 29-36, 47-54, 64, and 65.

## II.

Independent claim 15 is illustrative of independent claims 15, 37, and 55, and it reads as follows:

15. An audio user-interfacing method in which each of a plurality of items is represented in an audio field by plural synthesized sound sources from where sounds related to the item appear to emanate, the method comprising the steps of:

- (a) determining, for each said sound source, an associated rendering position at which the sound source is to be synthesized to sound in the audio field;
- (b) generating, using audio output devices, an audio field in which said sound sources are synthesized at their

associated rendering positions to provide sounds related to the items concerned, the audio output devices being

actually or notionally located closer to a user of the audio output devices than the positions of the plural synthesized sound sources;

(c) exploring the audio field by rotating it about a predetermined axis; and

(d) exploring the audio field by displacing it in a direction parallel to said axis;

with steps (c) and (d) being effected in any order or together.

Appellants argue that the Examiner is incorrect in concluding independent claims 15, 37, and 55 are similar to claim 1 and can therefore be rejected on the same rationale as set forth for claim 1 (App. Br. 16). Appellants point out that claims 15, 37, and 55 do not include “the requirement of claim 1 for rendering positions of synthesized sound sources to be on at least a portion of a cylindrical locus of points” (*id.*). Instead, these independent claims “[require] an audio field in which plural items are represented by synthesized sound sources to be explored by rotating the audio field about a predetermined axis and displacing the audio field in a direction parallel to its axis” (App. Br. 16-17). As such, the Examiner has not established a prima facie case of obviousness because the Examiner has not even attempted to address these limitations (App. Br. 17).

The Examiner acknowledges this deficiency in the rejection, but attempts to correct the deficiency after the close of prosecution by revising the rejection as it is set forth in the Examiner’s Answer:

Regarding the argued rejections of independent claims 15, 37 and 55 (Brief, page 16, 3rd paragraph), the rejections of claims 15, 37 and 55 are now individually explained above [in the Grounds of Rejection section of the Examiner's Answer]. Claims 15, 37 and 55 are similar to claim 1 with respect to the crust [sic: crux] of the appellants['] claimed subject matter.

(Ans. 25).

Records from the USPTO's PATENT APPLICATION LOCATING AND MONITORING electronic database (PALM) contain no evidence that Appellants filed a petition under 37 C.F.R. § 1.181 to challenge the Examiners' untimely introduction of the new grounds of rejection. Accordingly, we treat any potential challenge as waived (*see* MPEP § 1207.03(IV)), and we will address the merits of the Examiner's amended rejection.

In amending the rejection, the Examiner still has not alleged that either Massie or Arnold discloses the challenged limitation of claims 15, 37, and 55. Rather, the Examiner merely concludes that "it would have been obvious [sic: to] include a step (d) exploring the audio field by displacing it in a direction parallel to the axis (Ans. 10, 17, and 22). The Examiner does allege reasons for why one would have desired to possess data about audio fields at various locations (e.g., Ans. 10). However, the Examiner has not alleged, much less provided any evidence, that one of ordinary skill would have possessed the requisite knowledge or ability to actually explore the audio field at various locations by performing the offset as claimed.

For these reasons, we find that the Examiner has not established a *prima facie* case of obviousness. Accordingly, we do not sustain the Examiner's rejection of independent claims 15, 37, and 55, or dependent claims 16-28, 38-46, 56-63, and 66-68.

**DECISION**

The Examiner's decision rejecting claims 1-68 is reversed.

**REVERSED**

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